

[SLEW RATE ENHANCEMENT CIRCUIT VIA DYNAMIC OUTPUT STAGE]

Abstract

A slew rate enhancement circuit of an operational amplifier including a main output stage, a monitoring stage and an assistant output stage is provided. The input voltage of the operational amplifier is detected by the main output stage to decide for outputting a main current to the load or not. The main output stage also generates a push signal and a pull signal according to the input voltage, and thereafter the push signal and pull signal are decayed by the monitoring stage. The decayed push signal and decayed pull signal will turn on or turn off the assistant output stage to decided for outputting an assistant current to the load or not. Specially, the improved circuit is compact, does not increase static operating current for the original operational amplifier and occupies small chip area.